Energy and Diplomacy

LET THERE BE LIGHT

Life changed altogether when electricity came to two villages in Bangladesh. A case study

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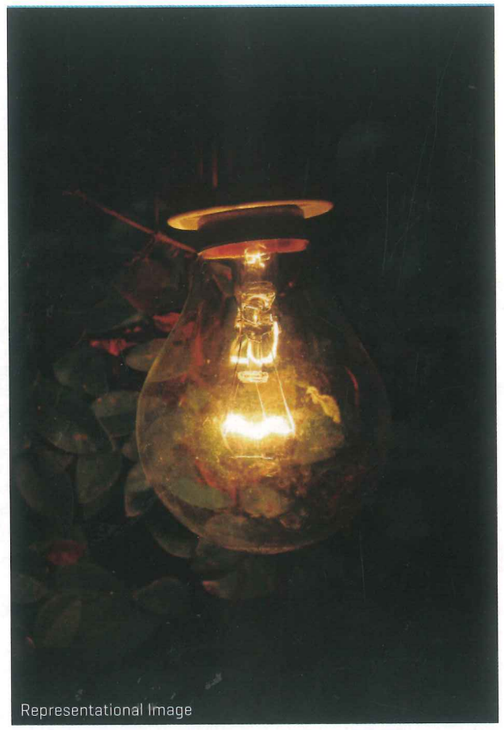
Cross-border electricity transmission (CBET)

In an effort to increase cooperation among South Asian Countries, India and Bangladesh entered into cross-border electricity trade with the launch of a 71-km high voltage transmission link that runs from Baharampur in West Bengal, India to Beheramara in Kushtiya, Bangladesh. In 2013, Bangladesh for the first time imported 500 MW of electricity from the Baharampur substation to its own substation in Bheramara in Doulotpur, Kushtiya. The Baharampur-Bheramara transmission line enters Bangladesh from Pakuriya Bhangapara, a border village located in the same upazila (sub-district) of Doulotpur in Kushtiya district. Bangladesh's 64 districts are divided into upazilas, which are further divided into Unions (rural area), cities (urban area) and municipalities (suburban area).

Pakuriya Bhangapara and Dhakipara are two villages in the Ramkrishopur Union that were electrified in 2014 and 2015, respectively. Of the 19 villages in this Union, 5 have been electrified so far. IRADe visited the two villages to study the socio-economic impact of electrification. Several people it spoke to said it takes one year from the time of application to get the connection at home. Almost half the households in the village have electricity.



Representational Image

Grid electricity came to two villages near Bangladesh's border with West Bengal in India only recently (2013). And with that life in the village changed altogether. Pakuriya Bhangapara was electrified in 2014 and Dhakipara a year later in 2015. The change touched every resident, bringing economic prosperity to the 300 – 400 households in each village. The immediate impact of electrification in Dhakipara was that land price shot up by 25 – 40 percent. Small businesses grew in both villages because shops now stayed open even in the afternoons in the comfort of electric fans. Earlier the sweltering heat drove owners to down the shutters.

Several young men acquired new skills in computer-printing, mobile repairing and operating battery charged rickshaws, particularly in Pakuriya Bhangapara, and started new businesses in the village.

Electricity also changed life in so many ways by just extending the day. Shops stayed open after dusk; children studied late into the evening, the girl child's school attendance improved because she did not have to gather firewood any more, and women spent far less time on cooking.

Women spend less time on cooking, more on side business

Take rice, for example, the staple food of Bangladesh. Cooking rice meant gathering firewood, lighting the clay oven, and then cooking it for at least an hour. Salma Khatun, of Dhakipara, is around 35 years and a mother of two. She said she would have to sit and keep a watch on the fire, fanning it from time to time, to keep the wood burning. Cooking rice alone took a long time. And she did that morning and evening. Besides rice, there was fish curry and vegetables. Cooking took up a large part of her day. If she was not cooking, Salma would have to go and gather firewood as her children were too young to help her with gathering firewood when her husband took the household electricity connection nearly three years ago. Electricity gave her time. And a longer day.

One of the things Salma did when electricity came to her house was to buy an electric rice cooker. Cooking rice now became a matter of pressing on a switch. All you have to do is wash the grains and put it in the rice cooker adding water, a chore that takes only 5 minutes, she said. Like her, many women in the village have bought rice cookers.

The cross-border high-voltage transmission line enters Bangladesh in Pakuriya Bhangapara, village studied for the socio-economic impact of electrification

EVERYONE IRADe SPOKE TO IN THE VILLAGES SAID ELECTRIFICATION GAVE THEM PROSPERITY. THE 400-TAKA MONTHLY BILL (AT 3.88 TAKA PER UNIT) WAS A WORTHY INVESTMENT. COMMERCIAL CONNECTIONS COST A LITTLE MORE, THOUGH, BUT STILL WORTH IT BECAUSE EARNINGS INCREASE WHEN THERE IS LIGHT

Like Salma, most of the women in Dhakipara, and also in Pakuriya Bhangapara, find their days have become longer. Electricity did not just reduce the time spent on gathering firewood and cooking, it also extended the day beyond daylight hours. Earlier life came to a standstill after dusk. Now everyone has more time for other things. Several women in both the villages have taken up income generating activities, which they carry out in the evenings mostly, as the day goes by in doing all the household chores. Women are now making important contribution to the family income with tailoring, sewing and making handicraft items in the evenings.

Electricity brought economic growth

Everyone IRADe spoke to in the villages said electrification gave them prosperity. The 400-taka monthly bill (at 3.88 taka per unit) was a worthy investment. Commercial connections cost a little more, though, but still worth it because earnings increase when there is light.

Electrification led to greater comfort to shop-owners. With a fan installed, they now spend longer hours even in hot summer days. And the shops stay open even after dark.

Take the example of the medicine shop in Dhakipara village. It now stays open through the day and late into the evening. This has not only led to increase in income for the owner, but also given greater access to medicine and health services to the community.

Mohammad Amjed Hussain, 30, said he got an electric connection for his tailoring shop in 2014. He found his business grew and income rose by at least 30 percent because he was able to work longer hours and increase productivity after electrification of the shop.

Amjed explained that with electricity there was overall prosperity in the village. Amjed's business grew as a result, so much so he even hired an assistant to keep up with the increase
in demand.

Mohammed Khalil Sheikh had to wait for a while to get a household electric connection. The cost of the connection is high, he said. But once he got the connection there was no looking back. It was a new life for all of them – his wife and two grown-up sons. With electricity in the house, they were able to charge the second-hand mobile phone everyday and use it frequently. With phone connectivity, there was networking. The family was now in touch with relatives in other parts of the country.

During one such phone conversation, Mohammed Khalil's older son learnt that a new infrastructure project in Comilla was paying double the rate he earned as a daily wage labourer in his own district – Kushtiya. Comilla is located more than 300 km away, on Bangladesh's eastern edge, bordering Tripura in India. Kushtiya is on the western fringe, bordering West Bengal. The labour rate in Kushtiya is 200 takas, whereas in Comilla, he started earning 400 takas a day in an infrastructure project. Soon Mohammed Khalil's younger son too started working in Comilla.

DISCUSSIONS WITH VARIOUS SECTIONS OF PEOPLE IN THE VILLAGE REVEALED THAT GRID ELECTRICITY HAS GIVEN THEM ACCESS TO VARIOUS TECHNOLOGICAL FACILITIES THAT WERE PREVIOUSLY UNAVAILABLE TO THEM

Now it is just he and his wife at home tending their farm and cattle. Husband and wife are able to manage without the help of their sons because there is electricity. His wife now has more time to care for the cattle, while he is able to manage the farm work with hired hands. He can afford it now because his sons are doing well.

Many young people and their parents IRADe spoke to in the village said with electricity their horizon has widened. Better connectivity has led to exchange of information related to work and business. Earlier, when the village was more or less their entire world, daily wage labourers went without work for several weeks in a year. Now that is no longer the case. Workers choose to work wherever the rates are good and employment available in the country.

Farmers and students do better

As for the 36 percent villagers who are farmers, they prospered with the overall increase in agricultural productivity. This was a result of better irrigation using electric motor pumps and improved storage facilities for farm products. Tending the cattle at home is also easier now with easy access to water from motor pumps.

Students form a sizeable segment of the village population. Both girl and boy students added three to four additional hours of study as the day became longer and the summer heat more bearable with light bulbs and fans in the house. As a result, they are doing better in school. Not just that, they talk to their cousins in cities on the mobile phone and are discovering new avenues for the future. Now that they are able to perform well, more and more young men will have a better opportunity to enroll in higher education in towns and cities. Until now, they left the village only to work.

The village school and primary health center also have got an electric connection, a fact which increased the efficiency of both these institutions. The primary health center is able to serve the people better as electricity allows them to use various medical gadgets, including sterilizing equipment. The medicine stock of the primary health center has also improved

The author (center) with residents of Dhakipara village

as storage is possible with the use of refrigerators.

Discussions with various sections of people in the village revealed that grid electricity has given them access to various technological facilities that were previously unavailable to them. Having the option to turn on a light bulb at night is more than just a convenience; it allows people to work for longer hours, study at night and engage in social activities, all of which add to the quality of their everyday lives. It also opens up uncharted avenues for a better future.

There is a downside, though. The villages may have been electrified, but power supply is erratic. Outages are a common occurrence and last for up to 7 hours even. It is hoped that the grid will improve its efficiency with time.

Down to brass tacks

Bangladesh is one of the least electrified countries in South Asia. According to the World Bank, only 78 percent of the population had access to electricity in 2016. Almost half the people in rural areas are still living in dark with no supply of power. Importing electricity from India is one of the most economical choices for Bangladesh. Since this prevents the country from having to exploit its natural resources and developing fossil fuel based power plants, it reduces the country's greenhouse gas (GHG) emissions and has notable environmental benefits. The funds saved from not having to invest in new infrastructure for the power sector can now be invested in other sectors and help boost the country's economic growth.

ENERGY POVERTY CAN IMPEDE A COMMUNITY FROM PROGRESS AND LOWER ITS QUALITY OF LIFE. THIS URGENTLY CALLS FOR GREATER ENERGY COOPERATION BETWEEN NATIONS IN SOUTH ASIA

Energy poverty can impede a community from progress and lower its quality of life. This urgently calls for greater energy cooperation between nations in South Asia, as an adequate energy supply can be all that is needed to pull a community out of extreme poverty. A more equal distribution of energy can contribute to greater equality in gender, health, nutrition and education in the world. While CBET offers huge benefits, there are various related technical, political and regulatory challenges that need to be addressed in a timely and effective manner. But it is well worth the effort as CBET has huge potential to support South Asia's aggressive pursuit of economic growth and help achieve SDGs.

The views in the article of the author are personal

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